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ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	09/932,631	PHILLIPS ET AL.
Office Action Summary	Examiner	Art Unit	
	Lucas Divine	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 June 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>*1,3-21 and 23-29*</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>*1,3-21 and 23-29*</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>*16 August 2001*</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some *   c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Claims 1, 3 – 21, and 23 – 29 are pending.

Response to Arguments

2.   Applicant's arguments filed 6/27/05 have been fully considered but they are not

persuasive.

With respect to applicant's arguments on page 9 regarding the amended claim 1 that

forwarding a message to the proper party of the respective consumable responsive to the

comparings is not taught in Sekizawa.

In reply, Sekizawa teaches updating the database 23 with received information from

communications from the agents 10 in col. 36 lines 1 – 25 and throughout.

Based on this updating, a message is forwarded (either by a user clicking a button or

automatically) to the display (e.g. Fig. 35) or local printer (e.g. status print Fig. 40A) or user of

the original printer (e.g. col. 5 line 63).   The operator/administrator of the administration agency

is a type of proper party in the database that the message is forwarded to (see col. 43 line 40 and

surrounding and Fig. 28A). See information in cols. 5, 6, 7, 9, 10 – 13, 21, 33, 34, and 37 – 43,

ref. nos. 731, 716, 752, 719, 762, and Figs. 41, 42A, 42B as examples detailing the specifics of

the displaying to the display, to the printer, or to the user at the remote printer. Further, col. 34

lines 10-13 and 60 – 61 and col. 39 line 60-63, as well as information in the cited columns above

teach the displaying of the status to the proper party as well as the printing.

The originally cited areas were examples (Examiner cites particular lines, columns, and figures in the references as examples, while the teachings of the art as a whole are applied to the specific limitations of the individual claim, and other passages and figures may apply as well) of what the message would look like for the applicant to view (see col. 39 lines 60-63, wherein the printed output is just what has already been forwarded to the display). Also, the user who received the print out of Fig. 40A is the local user at 20, which is the administrator of the system, a proper party.

Thus, Sekizawa does teach the claimed limitations (as further discussed in the rejections below) and the rejection is maintained.

With respect to applicant's arguments on page 9 regarding claim 3 that the motivation for combining Sekizawa and Saruta is insufficient.

In reply, Sekizawa does not specifically teach disabling at least one operation of an image forming device coupled with the consumable to be verified responsive to the comparison.

Saruta teaches disable at least one operation of an image forming device coupled with the consumable (S36 Fig. 13) to be verified responsive to the comparison (S34).

It would have been obvious to one of ordinary skill in the art that the controlling units of Sekizawa would prevent the printers from printing if they were out of ink/toner. The motivation for doing so would be to prevent the printer from trying to print sheets that it is not capable of printing correctly, thus saving other printing resources until the consumable is replenished.

Further, applicant states that '*printers P are generally configured to not proceed with printing when a consumable is expended*'. This is not specifically is taught in Sekizawa, and

thus the printers may or may not be configured as such. Further, applicant is submitting that

disabling a printer when a consumable is expended is well known thus showing it would have

been further obvious to add to the feature of Saruta to Sekizawa. Thus the motivation is proper

and maintained.

Further, if the cartridges run out, this might qualify under an abnormal state that requires

maintenance. This would include a warning to the user (col. 5 lines 55-65). Saruta teaches not

only warning the user, but also disabling the feature associated with the abnormal state.

With respect to applicant's arguments on page 10 regarding claim 9 that Sekizawa

doesn't teach the new limitation.

In reply, Sekizawa teaches **the processing circuitry is configured to control**

outputting of a communication responsive to the received party identifier not matching the

stored party identifiers (whether the party identifier matches [an existing table is updated] or

the party identifier doesn't match [a new table is created, see col. 36 lines 1-25, specifically lines

10-13] the database is still updated with the information and the resulting communications to the

display [see rejection to claim 10], to the user at the device [see rejection to claim 12], and/or

communication to the printer [Fig. 40A] all are controlled by the processing circuitry). Also, in

the discussion of newly added claim 27 Examiner states e.g. if one identifier of the a party is not

correct, the database can update the current table [if the address 1 identifier for the customer is

updated for example, or if the customer still exists, but has a new customer code for example] or

can create a new table [if the customer doesn't exist, col. 36 lines 10-11 and surrounding for

example], either way, a party identifier fails to match a stored identifier and the database is

updated. Thus a communication is still outputted in response to the matchings/comparings.

With respect to applicant's arguments on pages 10-12 regarding claim 17 that the

motivation is deficient.

In reply, while the combination of Sekizawa in view of Yoshida teaches sending an

updated communication responsive to the change of printer status to inform the global

management device 20 of the latest status, the combination does not specifically express detect

coupling of the consumable with the image forming device and updating printer status based on

the coupling of a new consumable.

Okazawa teaches that when a new consumable is loaded, the coupling thereof is detected

(mounting of cartridge in system; paragraphs 86 and 87, Fig. 26). The consumable identifier is

read and the host is informed of the new consumable (S2604).

It would have been obvious to one of ordinary skill in the art that a printer such as that of

the combination would include the detecting of newly mounted printer cartridges and would

inform the host of the new cartridge as in Okazawa. The motivation for doing so would be to let

the monitoring apparatus know the status of the printer, including for correcting any consumable

empty errors are that now gone and printing can resume.

Sekizawa does not specifically teach that detecting new consumables is part of status.

Okazawa teaches informing the host of the new status of the printer since the consumable is new.

Thus it follows that when a new consumable is loaded, the status would want to be updated with

this information, and the new consumable information would be read and updated into the

database 23. The updated status would then be included in the communication to the proper
party.

Thus Okazawa is specifically relied upon to teach that **detecting new consumables is a
well known feature in the art for including in status updates for printers.** This hopefully
answers why one would modify a first reference using a second reference, because the first
reference does not specifically teach that detecting new consumables is part of the status updates.

Further, if the cartridge was out of ink/toner and an abnormal state was what the printer
was in, the polling features applicant cites would not be in effect, the status would update
immediately (col. 5 line 54 'regardless of second time period'). Thus when the new cartridge is
loaded, the status would again be updated so the printer could be designated as operational
'instantly' (col. 8 line 4).

Further in response to applicant's argument, the claim and Okazawa do not specifically
teach <u>when</u> the communication is sent or the host is updated, respectively, and it could very well
be updated when the next polling cycle would happen as done in Sekizawa if the toner/ink out
was not considered an abnormal state worthy of canceling original polling methods.

Thus, the motivation is sufficient and the rejection maintained.

Claim Objections

3.   Claim 25 is objected to because of the following informalities: the claim discusses
matching a 'party identifier' with a stored 'consumable identifier'. Examiner believes that
applicant meant matching a party identifier with a stored party identifier because there is no
teaching in applicant's specification that would match the party identifier with the consumable

identifier. The example given n S34 compares the received party identifier with the stored party

identifier. Further, it doesn't seem to make much sense, comparing e.g. the administrator/owner

of a consumable with the consumable serial number or other identification. Thus, Examiner has

interpreted the claim as indicated and appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1, 4 – 10, 12 – 16, and 25 – 27 are rejected under 35 U.S.C. 102(e) as being

anticipated by Sekizawa (US 6681349).

Regarding claim 1, Sekizawa teaches **an image forming device consumable monitoring**

method comprising:

storing information regarding a plurality of consumables usable by an image

forming device to form hard images (the database 23, as part of 20, shown in Fig. 27 stores the

information regarding the printers and consumables and proper parties of the system; Fig. 28B,

as stored in database 30, shows information regarding consumables for each network printer; col.

33 line 35), **wherein the stored information for an individual one of the consumables (Figs.**

28A and B, ink remaining amount 1 for the black ink consumable is an individual consumable,

the associated stored information for this consumable is the complete tables of Figs. 28A and B,

so the agent information in 28A is associated and included in the storage information for the

individual consumable black ink cartridge – for yellow ink amount 2, the storage information

includes the same data, but it is still the stored information of the individual consumable)

includes a stored consumable identifier which identifies the respective consumable (e.g. ink

amount 1 for black ink cartridge identifies the specific cartridge) **and a stored party identifier**

utilized to identify a proper party of the respective consumable (e.g. the agent information

including company name, administrator as well as customer name and company are all

identifiers of parties associated with the consumable that is being monitored; Fig. 28A);

receiving information regarding a consumable to be verified (through LAN adapter

133, Fig. 26) **including a received consumable identifier which identifies the consumable to**

be verified and a received party identifier utilized to identify the proper party associated

with the consumable to be verified (LAN adapter 133 and functionally global information

getting section 22 in Fig. 27 receive information regarding the status of the remote printing

systems and extract the data [col. 33 lines 53-57] and forward the data onto the database

management unit for managing the data in the database as discussed above, which includes the

consumable and party identifiers);

comparing the received consumable identifier with at least one of the stored

consumable identifiers (e.g. col. 36 lines 10-25, wherein tables for customer, agent, printer, and

status information are compared to the data in the database in order to update the database new

information, which includes each field, including consumable and party identifier fields; if the

database has the same data, nothing occurs, if the comparison reveals that new data is inputted,

either the database is updated or, in the case of a whole table being new, a table is created);

comparing the received party identifier with at least one of the stored party

identifiers (e.g. col. 36 lines 10-25, wherein tables for customer, agent, printer, and status

information are compared to the data in the database in order to update the database new

information, which includes each field, including consumable and party identifier fields; if the

database has the same data, nothing occurs, if the comparison reveals that new data is inputted,

either the database is updated or, in the case of a whole table being new, a table is created); **and**

forwarding a message to the proper party of the respective consumable responsive

to the comparings (e.g. status report shown in Fig. 40A, to the proper party O△X Corporation,

consumable information displayed as updated with each comparison, for example, comparison

on 91/11/04 is shown as well as the latest 97/11/06 which has just been compared – this

information is the same message information [col. 34 lines 10-13 and 60 – 61 and col. 39 line 60-

63] forwarded to the operator [col. 43 line 40] who is an administrator of the system and

identified as a proper party in Fig. 28A; further examples include the forwarding of update

messages to the display via automatically keeping the display up to date with the latest

information or by a user requesting it through buttons in the user interface, see col. 5, 6, 7, 9, 10

– 13, 21, 33, 34, and 37 – 43, ref. nos. 731, 716, 752, 719, 762 Figs. 41, 42A, 42B as well as

other locations for more discussion of forwarding messages to displays of the proper party).

Regarding claim 4, which depends from claim 1, Sekizawa teaches **forwarding another**

message comprising a warning message to an image forming device coupled with the

consumable to be verified responsive to the comparings (col. 5 lines 60-65, wherein the user

at the image forming device is notified of an abnormal state of the device after the device 20 has

updated the database [comparings] with the new status information).

Regarding claim 5, which depends from claim 1, Sekizawa teaches **recording the**

received consumable identifier, the received party identifier, and date and time

information regarding the reception of the received information (Figs. 28A and B show

plural date and time identifiers for when the data was taken, when it was received etc... further,

regarding the reception to the current system, Fig. 35 shows a user window including the mail

getting date and time, which is the time that the identifiers were received at the monitoring

computer - information for user use and display stored in hard disk, including database 28 which

stores the party and consumable identifiers as discussed in the rejection of claim 1 and the time

and date identifiers).

Regarding claim 6, which depends from claim 1, Sekizawa teaches **receiving the**

received party identifier comprises receiving a received device identifier which identifies

the image forming device which communicated the information (printer information

including printer name [identifier] is included in the monitoring database as shown in Fig. 28B)

and wherein the storing comprises storing the stored party identifier comprising at least

one stored device identifier which identifies an image forming device associated with the

proper party for the respective consumable (Fig. 35 shows at least one image forming device

associated with a single party identifier [OOO Corporation], which inherently must be stored in

order to be displayed) **and wherein the comparing the received party identifier comprises**

comparing the received device identifier with the stored device identifier (complete table

information is compared and updated in col. 36 lines 10-25, which includes printer information

and all other information that is sent).

Regarding claim 7, which depends from claim 6, Sekizawa teaches **the storing the**

stored party identifier comprises storing a plurality of stored device identifiers (Fig. 35

shows a plurality of image forming devices associated with a single party identifier [OOO

Corporation], which inherently must be stored in order to be displayed) **and the comparing the**

received party identifier comprises comparing the received device identifier with the

plurality of stored device identifiers (complete table information is compared and updated in

col. 36 lines 10-25, which includes printer information and all other information that is sent).

Regarding claim 8, which depends from claim 1, Sekizawa teaches **receiving the**

received party identifier comprises receiving the received party identifier which directly

identifies the proper party of the respective consumable (the information also includes the

party identifiers which directly identify the proper parties of the consumable – see Fig. 28A and

B wherein Company Name, Customer Code, and Administrator are all identified and are all parts

of information that have been received by the interface over the network.

Regarding claim 9, Sekizawa teaches **a consumable monitoring system** (Fig. 1)

comprising:

a **database** (23 as shown as part of monitoring apparatus 20 in Fig. 27) **configured to**

store information regarding a plurality of consumables usable by an image forming device

to form hard images (Fig. 28B, as stored in database 30, shows information regarding

consumables for each network printer; col. 33 line 35), **wherein the stored information for an**

individual one of the consumables (Figs. 28A and B, ink remaining amount 1 for the black ink

consumable is an individual consumable, the associated stored information for this consumable

is the complete tables of Figs. 28A and B, so the agent information in 28A is associated and

included in the storage information for the individual consumable black ink cartridge – for

yellow ink amount 2, the storage information includes the same data, but it is still the stored

information of the individual consumable) **includes a stored consumable identifier which**

identifies the respective consumable (ink amount 1 for black ink cartridge identifies the

specific cartridge), **and a stored party identifier utilized to identify a proper party associated**

with the respective consumable (the agent information including company name, administrator

as well as customer name and company are all identifiers of parties associated with the

consumable that is being monitored; Fig. 28A);

an interface (LAN adapter 133; Fig. 26) **adapted to receive information regarding a**

consumable to be verified including a received consumable identifier which identifies the

consumable to be verified and a received party identifier utilized to identify the proper

party associated with the consumable to be verified (LAN adapter 133 and functionally global

information getting section 22 in Fig. 27 receive information regarding the status of the remote

printing systems and extract the data [col. 33 lines 55-57] and forward the data onto the database

management unit for managing the data in the database as discussed above, which includes the

consumable and party identifiers); **and**

processing circuitry (Fig. 27, database management section 24 as controlled by CPU

130) **configured to compare the received consumable identifier with the stored consumable**

identifier and to compare the received party identifier with the stored party identifier (col.

36 lines 10-25, wherein tables for customer, agent, printer, and status information are compared

to the data in the database in order to update the database new information, which includes each

field, including consumable and party identifier fields; if the database has the same data, nothing

occurs, if the comparison reveals that new data is inputted, either the database is updated or, in

the case of a whole table being new, a table is created); **and**

wherein the processing circuitry is configured to control outputting of a

communication responsive to the received party identifier not matching the stored party

identifiers (whether the party identifier matches [an existing table is updated] or the party

identifier doesn't match [a new table is created, see col. 36 lines 1-25, specifically lines 10-13]

the database is still updated with the information and the resulting communications to the display

[see rejection to claim 10], to the user at the device [see rejection to claim 12], and/or

communication to the printer [Fig. 40A] all are controlled by the processing circuitry).

Regarding claim 10, which depends from claim 9, Sekizawa further teaches **a message**

to the proper party associated with the respective consumable responsive to the

comparisons (message information [col. 34 lines 10-13 and 60 – 61 and col. 39 line 60-63]

forwarded to the operator [col. 43 line 40] who is an administrator of the system and identified

as a proper party in Fig. 28A; further examples include the forwarding of update messages to the

display via automatically keeping the display up to date with the latest information or by a user

requesting it through buttons in the user interface, see col. 5, 6, 7, 9, 10 – 13, 21, 33, 34, and 37

– 43, ref. nos. 731, 716, 752, 719, 762 Figs. 41, 42A, 42B as well as other locations for more

discussion of forwarding messages to displays of the proper party).

Regarding claim 12, which depends from claim 9, Sekizawa teaches **forward the**

communication comprising a warning message to an image forming device coupled with

the consumable to be verified responsive to the comparings (col. 5 lines 60-65, wherein the user at the image forming device is notified of an abnormal state of the device after the device 20 has updated the database [comparings] with the new status information).

Regarding claim 13, which depends from claim 9, Sekizawa teaches a memory device (database 23 is stored in memory device/hard disk 138), and wherein the processing circuitry is configured to forward the received consumable identifier, the received party identifier, and date and time information (Figs. 28A and B show plural date and time identifiers for when the data was taken, when it was received etc... further, regarding the reception to the current system, Fig. 35 shows a user window including the mail getting date and time, which is the time that the identifiers were received at the monitoring computer) regarding the reception of the received consumable identifier and the received party identifier to the memory device for storage (information for user use and display stored in hard disk, including database 28 which stores the party and consumable identifiers as discussed in the rejection of claim 1 and the time and date identifiers).

Regarding claim 14, which depends from claim 9, Sekizawa further teaches that the interface is adapted to receive the information regarding the consumable to be verified including the received party identifier comprising a received device identifier which identifies the image forming device which communicated the information (printer information including printer name [identifier] is included in the monitoring database as shown in Fig. 28B) and

wherein the database is configured to store the stored party identifier comprising at least one stored device identifier which identifies an image forming device associated with

the proper party for the respective consumable (Fig. 35 shows at least one image forming

device associated with a single party identifier [OOO Corporation], which inherently must be

stored in order to be displayed) and

wherein the processing circuitry is configured to compare the received device

identifier with the stored device identifier to compare the received party identifier with the

stored party identifier (complete table information is compared and updated in col. 36 lines 10-

25, which includes printer information and all other information that is sent).

Regarding claim 15, which depends from claim 14, Sekizawa further teaches the

database is configured to store the stored party identifier comprising a plurality of stored

device identifiers which identify a plurality of image forming devices associated with the

proper party of the respective consumable (Fig. 35 shows a plurality of image forming

devices associated with a single party identifier [OOO Corporation], which inherently must be

stored in order to be displayed), and

wherein the processing circuitry is configured to compare the received device

identifier with the stored device identifiers (complete table information is compared and

updated in col. 36 lines 10-25, which includes printer information and all other information that

is sent).

Regarding claim 16, which depends from claim 9, Sekizawa teaches that interface is

adapted to receive the information regarding the consumable to be verified (Fig. 26,

interface 133 accepts information, including that of printer status, which is information regarding

the consumable) including the received party identifier which directly identifies the proper

party of the respective consumable (the information also includes the party identifiers which

directly identify the proper parties of the consumable – see Fig. 28A and B wherein Company

Name, Customer Code, and Administrator are all identified and are all parts of information that

have been received by the interface over the network).

Regarding claim 25, which depends from claim 1, Sekizawa teaches **forwarding the**

message responsive to the received party identifier not matching an individual one of the

stored consumable identifiers (whether the party identifier matches [an existing table is

updated] or the party identifier doesn't match [a new table is created, see col. 36 lines 1-25,

specifically lines 10-13] the database is still updated with the information and the resulting

communications to the display [see rejection to claim 10], to the user at the device [see rejection

to claim 12], and/or communication to the printer [Fig. 40A] all are controlled by the processing

circuitry).

Regarding claim 26, which depends from claim 1, Sekizawa teaches **the forwarding**

comprises forwarding the message responsive (the forwarding is responsive to the underlining of

the database, which includes the matchings listed) **to the received consumable identifier**

matching at least one of the stored consumable identifiers (in order to update the ink

remaining amount, the consumable identifier must be located in the database and the new value

written in for the underlining of status) **and the received party identifier failing to match a**

stored party identifier of the respective consumable associated with the at least one stored

consumable identifier (e.g. if one identifier of the a party is not correct, the database can update

the current table [if the address 1 identifier for the customer is updated for example, or if the

customer still exists, but has a new customer code for example] or can create a new table [if the

customer doesn't exist, col. 36 lines 10-11 and surrounding for example], either way, a party

identifier fails to match a stored identifier and the database is <u>updated</u>).

Regarding claim 27, which depends from claim 9, Sekizawa teaches **the processing**

circuitry is configured to match the received consumable identifier with a stored

consumable identifier of one of the consumables (in order to update the ink remaining amount,

the consumable identifier must be located in the database and the new value written in for the

<u>updating</u> of status**), and to control the outputting of the communication responsive** (the

forwarding is responsive to the <u>updating</u> of the database, which includes the matchings listed) **to**

the received party identifier not matching a stored party identifier (e.g. if one identifier of

the a party is not correct, the database can update the current table [if the address 1 identifier for

the customer is updated for example, or if the customer still exists, but has a new customer code

for example] or can create a new table [if the customer doesn't exist, col. 36 lines 10-11 and

surrounding for example], either way, a party identifier fails to match a stored identifier and the

database is <u>updated</u>).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

5.   Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Sekizawa as applied to claims 1 and 9 above, and further in view of Saruta (US 6631967).

Regarding claim 3, which depends from claim 1, Sekizawa teaches console unit 20 and agent unit 10 acting to control the printer devices. Sekizawa also teaches updating the monitoring device with the latest printer status, including ink and toner level of consumables.

Sekizawa does not specifically teach **disabling at least one operation of an image forming device coupled with the consumable to be verified responsive to the comparison.**

Saruta teaches **disable at least one operation of an image forming device coupled with the consumable (S36 Fig. 13) to be verified responsive to the comparison (S34).**

It would have been obvious to one of ordinary skill in the art that the controlling units of Sekizawa would prevent the printers from printing if they were out of ink/toner. The motivation for doing so would be to prevent the printer from trying to print sheets that it is not capable of printing correctly, thus saving other printing resources until the consumable is replenished.

Regarding claim 11, which depends from claim 9, Sekizawa teaches console unit 20 and agent unit 10 acting to control the printer devices. Sekizawa also teaches updating the monitoring device with the latest printer status, including ink and toner level of consumables.

Sekizawa does not specifically teach **disabling at least one operation of an image forming device coupled with the consumable to be verified responsive to the comparison.**

Saruta teaches **disabling at least one operation of an image forming device coupled with the consumable (S36 Fig. 13) to be verified responsive to the comparison (S34).**

It would have been obvious to one of ordinary skill in the art that the controlling units of Sekizawa would prevent the printers from printing if they were out of ink/toner. The motivation for doing so would be to prevent the printer from trying to print sheets that it is not capable of printing correctly, thus saving other printing resources until the consumable is replenished.

6.   Claims 17, 19, 20, 21, 23, 28, and 29 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Sekizawa in view of Yoshida et al. (US 6130757) and Okazawa (US

2002/0002492)..

Regarding claim 17, Sekizawa teaches **an image forming device** (P(n) Fig. 3)

comprising:

an image engine configured to use a consumable to form a hard image (implied that a

network printer includes a print engine to print data onto a sheet);

processing circuitry (control processing circuitry 15 in agent unit 10 acting as printer

server for monitoring devices; col. 20 lines 16-42) **coupled with the image engine** (control

section coupled with image engine via local information getting section 11 and network 3a) **and**

configured to formulate an identifier message (mail message formulated for transmission to

global monitoring device shown in Fig. 22) **including a party identifier** (customer mail address

identifies the party that is associated with the printer and the consumables in the printer as shown

in Fig. 22) **utilized to identify a party associated with image forming device and an**

identifier of the consumable (message includes identifiers for plural consumables associated

with image forming device, for example, black ink consumable 1, Fig. 22), **and**

wherein the processing circuitry is further configured to control communication of

the identifier message (control section 15 directs the information to be output to global

monitoring device 20, see global Fig. 1); **and**

an interface adapted to communicate externally of the image forming device and to

communicate the identifier message (interface 13, Fig. 3).

While Sekizawa teaches an image forming device and an agent unit that acts as a printer server for monitoring image forming devices, Sekizawa does not specifically teach that the monitoring functionality can be implemented by an image forming apparatus itself or detecting coupling of the consumable in with the image forming device.

However, it is known in the art, and Yoshida teaches, an image forming apparatus that can act as a printer server or a printer client for controlling other network image forming devices, thus including image forming and print server related functions (multi-function device 1 as shown in Fig. 1; col. 4 lines 30-31, col. 9 lines 15-16, col. 9 line 1).

It would be obvious to one of ordinary skill in the art that the functionality of the agent unit of Sekizawa could have been implemented in a sophisticated image forming device such as that of Yoshida. The motivations for doing so would have been to reduce complexity by having all functionality needed at one device instead of two and it would allow image forming apparatuses to directly connect to the remote monitoring agent 20 of Sekizawa to complete transactions and status updates without the delay of a middle unit.

Sekizawa further **teaches to control the communication of the identifier message** (Fig. 22 shows the identifier message with consumable status within).

While the combination of Sekizawa in view of Yoshida teaches sending an updated communication responsive to the change of printer status to inform the global management device 20 of the latest status, the combination does not specifically express **detect coupling of the consumable with the image forming device** and updating printer status based on the coupling of a new consumable.

Okazawa teaches that when a new consumable is loaded, **the coupling thereof is detected** (mounting of cartridge in system; paragraphs 86 and 87, Fig. 26). The consumable identifier is read and the host is informed of the new consumable (S2604).

It would have been obvious to one of ordinary skill in the art that a printer such as that of the combination would include the detecting of newly mounted printer cartridges and would inform the host of the new cartridge as in Okazawa. The motivation for doing so would be to let the monitoring apparatus know the status of the printer, including for correcting any consumable empty errors are that now gone and printing can resume.

Regarding claim 19, which depends from claim 17, Sekizawa teaches **a warning message to an image forming device coupled with the consumable to be verified responsive to the comparings** (col. 5 lines 60-65, wherein the user at the image forming device is notified of an abnormal state of the device after the device 20 has updated the database [comparings] with the new status information).

Regarding claim 20, which depends from claim 17, Sekizawa further teaches that **the identifier message including the party identifier which identifies the image forming device** (Fig. 22, wherein the printer serial number is included in the identifier message).

Regarding claim 21, which depends from claim 17, Sekizawa further teaches that **the identifier message including the party identifier which directly identifies the party associated with the image forming device** (Fig. 22, wherein the customer mail address acts as a party identifier, identifying the party associated with printer and consumable).

Regarding claim 23, which depends from claim 17, Sekizawa further teaches that **the image engine comprises a print engine** (network printer P(n) is implied to have a print engine that uses the consumable to print data onto a hard copy).

Regarding claims 28 and 29, which depend from claim 17, Sekizawa teaches **the processing circuitry is configured to push the communication of the identifier message responsive** an update of the database with new status information (col. 8 line 4, wherein the received data can be displayed instantly with no delay; step S701, wherein main window [Fig. 35] is displayed with status before a user clicks any buttons; col. 45 lines 20-45, wherein the most recent status is automatically updated "pushed" in the display message) **and in the absence of a polling communication** (the display messages forwarded to the display are forwarded when the status is updated, there is no polling of the processing circuitry of the database to see when things are updated). Sekizawa doesn't specifically teach responsive to the coupling, but Okazawa does as discussed in parent claim.

7.   Claim 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Sekizawa in view of Yoshida and Okazawa as applied to claim 17 above, and further in view of Saruta.

Regarding claim 18, which depends from claim 17, Sekizawa teaches console unit 20 and agent unit 10 acting to control the printer devices. Sekizawa also teaches updating the monitoring device with the latest printer status, including ink and toner level of consumables. Sekizawa also teaches that the **interface (13) can receive a command responsive to the communication of the identifier message** (the console unit can send messages back in

response, such as status reports [Fig. 40] and printers can receive commands from remote units, such as console unit 20).

Sekizawa does not specifically teach **disabling at least one operation of an image forming device coupled with the consumable to be verified responsive to the comparison.**

Saruta teaches **disabling at least one operation of an image forming device coupled with the consumable (S36 Fig. 13) to be verified responsive to the comparison (S34).**

It would have been obvious to one of ordinary skill in the art that the controlling units of Sekizawa would prevent the printers from printing if they were out of ink/toner. The motivation for doing so would be to prevent the printer from trying to print sheets that it is not capable of printing correctly, thus saving other printing resources until the consumable is replenished.

8.   Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sekizawa as applied to claim 1 above, and further in view of well known prior art.

Regarding claim 24, which depends from claim 1, Sekizawa teaches forwarding of the message to proper parties including the monitoring agent administrator (col. 43 line 40) as well as the user at the image forming device (col. 5 lines 60-65) and Sekizawa teaches storing the owner information of the printer and its consumables (customer information in Figs. 28A and B) including owner fax and address and email address (note customer code associated with printer in Fig. 28B) Also, in col. 7 lines 5-12, Sekizawa teaches informing appropriate people of abnormal state problems.

Sekizawa does not specifically teach that administration device 20, local device 10, or the user is the customer/owner of the device.

However, Examiner takes Official Notice that well known prior art could be any of those three, e.g. if the administration device and personnel were part of the customer's company, if a subunit (e.g. 2a) is a customer, therefore sending a message to 10 or the printer would constitute sending the message to the customer/owner, and/or if the user using the printer was the customer/owner. Further, the description implies that the subunits 2a, 2b, and 2c could all be different customer units and thus would make the combination more obvious (col. 45 lines 66-67 and throughout).

Thus, it would have been obvious to one of ordinary skill in the art that any or all of those three could have been the owner/customer as noted in the database of Sekizawa. The motivations for being the customer would have been in each case respectively, if the customer is a huge company that runs the whole network in Fig. 1, if the customer is the smaller entity of 2a (col. 33 line 65), or if the customer just owns the specific P(n) and is using it as the user. This would allow the customer to know what the status of their printers is.

Conclusion

9.   *Examiner note:* while the processing circuitry and the forwarding do not have polling between them as cited in the claim, the overall system does have polling between 10 and P(n), and that might be what was attempted to be claimed. If so, Examiner points to col. 5, 14, 22, 32, 44, and 45, wherein if there is an abnormal state, the polling is not used, and the status messages are sent immediately and the display would be updated instantly with no delay.

10.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Lupien, Jr. et al. (US 5959530) teaches remote computer security system for

computers, printers, and multifunction devices. Foth (US 6325495) teaches method and

apparatus for preventing the unauthorized use of a retaining cartridge.

11.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Lucas Divine whose telephone number is 571-272-7432. The

examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lucas Divine
Examiner
Art Unit 2624

ljd

KING Y. POON
PRIMARY EXAMINER